SB 317
.C2 U62
Copy 1

LIBRARY OF CONGRESS
0 020 950 084 A

Hollinger Corp.

62D CONGRESS, 2d Session. } HOUSE OF REPRESENTATIVES. { REPORT No. 821.

SB 317
.C2 U62
Copy 1

LUTHER BURBANK.

JUNE 1, 1912.—Committed to the Committee of the Whole House and ordered to be printed.

U. S. Congress House

Mr. RAKER, from the Committee on the Public Lands, submitted the following

REPORT.

[To accompany H. R. 23043.]

The Committee on the Public Lands, to whom was referred the bill (H. R. 23043) to patent certain semiarid lands to Luther Burbank, of Santa Rosa, Cal., under certain conditions, having had the same under consideration, unanimously recommend that the bill be amended as follows:

On page 1, line 4, after the word "unappropriated," add a comma.

On the same line, after the word "nonmineral," strike out the word "and" and insert "nontimber." On the same line, after the word "nonirrigable," insert the word "and."

On page 1, line 5, before the word "land," insert the word "public."

On page 1, line 13, strike out the words "from the United States."

On page 2, at the end of line 10, after the word "years" and before the colon, insert the following: "and until it has been shown to the satisfaction of the Secretary of the Interior that the lands to be patented are suitable for the growth of spineless cacti valuable for domestic animal food."

On page 2, in line 12, strike out the words "and that" after the word "Interior" and insert the word "when."

On page 2, in line 13, strike out the words "as to the" before the word "semiarid" and insert the following words: "to the Secretary of the Interior is."

On page 2, in line 14, after the word "nonirrigable," insert the words "nontimbered, unreserved," and strike out the words "the character of said land" in lines 14 and 15.

And as thus amended the committee unanimously recommend that the bill do pass.

There seems to be no doubt that Luther Burbank, of Santa Rosa, Cal., has propagated a spineless cactus or cacti most valuable for

forage, which if properly introduced, may revolutionize the agricultural conditions in many of the semiarid and arid regions of the southwestern part of the United States.

The bill under consideration is intended to encourage Mr. Burbank, or those whom he may associate with him, to experiment with these cacti in the States of California, New Mexico, Arizona, and Nevada, in order that it may be demonstrated whether these cacti can be so grown as to be of great commercial importance to those regions which Mr. Burbank claims.

In order to encourage these experimentations, it is proposed to permit Mr. Burbank, after it is demonstrated to the satisfaction of the Secretary of the Interior that said cacti can be thus commercially and profitably prepared, to purchase the amount of land as stated in the bill at the usual price of $1.25 per acre, if without the railroad limits and $2.50 per acre if within said limits. At the present time the lands in question are without any commercial value. It should also be stated that Mr. Burbank is now propagating these cacti, and selling the same to all comers at a reasonable price, but these plants are going into sections of California chiefly where their growth and propagation is not attended with any great expense or uncertainty. It is the view of the committee that it is most desirable to encourage these experimentations in the parts of the arid and semiarid Southwest which are at this time practically deserts and now await development. If this encouragement demonstrates that these sections are suitable for the production of these cacti, the beneficial results will be of incalculable value to the nation.

The bill H. R. 23043 is in lieu of H. R. 20477.

The following is the report of the Secretary of the Interior upon the bill in question:

DEPARTMENT OF THE INTERIOR,
Washington, March 29, 1912.

SIR: I have the honor to acknowledge receipt of your request for a report on H. R. 20477, a bill to patent certain semiarid lands to Luther Burbank under certain conditions.

It is proposed by this bill to set aside public lands (not exceeding 12 sections in all), in California or Arizona, in order to afford Mr. Luther Burbank an opportunity to propagate thereon spineless and edible cacti. It is proposed that patent to these lands shall issue to Mr. Burbank, or his successors in interest, provided the Government price of the land be paid within five years after selection of the various tracts, and provided further that no patent shall issue until Burbank, or his successors, shall have had at least 100,000 growing plants of said cacti upon the lands or some part thereof for the period of one year.

Under the proviso to section 2, the lands which may be secured under this bill must be semiarid and unsuitable for agricultural purposes under present methods of agriculture, and no tract shall be set aside under the provisions of the bill until the Commissioner of the General Land Office shall have certified to its character as indicated.

The department is, of course, acquainted in a general way with the most valuable services of Mr. Burbank and the numerous benefits he has conferred upon the people by his discoveries in arboriculture and horticulture.

The department has not sufficient information on the subject to enable it to determine or to express an opinion as to whether the area named in the bill is a proper one to be allowed Mr. Burbank for his development work. The bill as drawn also compels the department to patent the land selected by Mr. Burbank from the unappropriated and reserved lands in California or Arizona, provided it is semiarid and unsuited for agricultural purposes under present methods of agriculture. There is a great quantity of land of this character which will in all probability not be taken up for homestead entries for a great many years to come, but it may have a value for other than agricultural purposes, and there may be reasons why the particular area selected by Mr. Burbank should not be granted to him. While I have no doubt that he would desire

to cooperate in every proper way with the department, it would seem wise to modify the final provision in the bill to read as follows:

"*Provided further*, That the land selected shall be approved by the Secretary of the Interior, and that the Commissioner of the General Land Office shall certify," etc.

If amended in the manner suggested the department would offer no objection to the proposed legislation.

Respectfully,

WALTER L. FISHER, *Secretary*.

Hon. JOSEPH T. ROBINSON,
Chairman Committee on the Public Lands,
House of Representatives.

The Committee calls special attention to the speech delivered by Congressman Hayes, on spineless cacti, grown at Santa Rosa, Cal., as to its food properties and as to its merits.

The data concerning this cactus can be found in this speech on page 2884 of the Congressional Record of March 2, 1912.

In this connection the committee quotes from "Plant Breeding," by Hugo DeVries, page 228, as follows:

The spineless edible cactus combines, in the same way, the main character of its spineless parent with the excellent qualities of the ordinary cultivated varieties. It has excellent fruit of a new flavor which may be eaten fresh or cooked. As food for cattle the stems are very rich; they are estimated to be at least one-half as nutritious as alfalfa (Lucerne clover). The production of this variety started from five species of Opuntia imported from different countries, the names of some of them being unknown at the time. Among them was a spineless but small and insignificant species from Central America. These he has crossed and recrossed with the cultivated varieties, selecting for vigorous growth and superior pod-bearing qualities. A number of European and African varieties of Indian figs were sent to him and the *Opuntia vulgaris*, *O. Engelmanni*, and other hardy types were mixed with them. The beds, which I saw in 1906, showed hundreds of specimens which had been planted in the spring and had already produced a first set of numerous disk-like branches. They were expected to make two or three more sets in the same year and to fill in the large spaces which were left between them at the time of their planting. They varied in size, form, and color of the pods, and probably, also, in their nutritious qualities, and were grown as a direct test of these points. The value of these hundreds of plants which will on the average produce 50 pods each in a year, may be deducted from the fact that he had sold five of the pods to an Australian firm and was building a new and larger residence from the sum they had brought him.

It would, of course, add highly to the value of this race if it could be made constant from seed. It is evident that a rapid spreading, as well as the treatment on the farms, would be made more easy by such a change. I saw numerous seed boxes with small seedlings, but almost all of them were spiny. Thousands were rejected, and only those which showed a distinct diminution of their spines were selected and planted out. Large beds with young spineless plants were seen in his garden. Burbank estimates, from the present extension of uncultivated lands fit for the production of cacti, that his spineless and edible varieties may, in time, double the population of the earth. At least they promise to do more for the world in a material way than any other of his productions, but much work will still be required before even an essential part of his hopes can be brought into execution.

We refer to what Mr. Harwood has to say on the spineless edible cactus in his work, New Creations in Plant Life:

THE THORNLESS EDIBLE CACTUS.

The problems that confront Mr. Burbank in his work are many and sometimes of great difficulty. One plant may present a simple nature and a comparatively short life history. Another may be exceedingly complex in nature and of great age. The first he finds easy of manipulation, the second often very difficult. The plants with millions of years back of them, which may be traced in the very rocks themselves, are likely to prove stubborn, to persist in their old habits; or, if they at first appear to yield, to return to these old habits at a later day.

He has found this particularly true of the cactus, in the changing of which he has accomplished one of his most wonderful achievements. For years he had the cactus

under consideration. It had long seemed to him that it should be taken out of its environment and set forward among the helps instead of the hindrances of the race. Sometimes he comes instantly to a conclusion, seeing immediately the bearing of things and setting out upon a certain course, fortified at all points. Sometimes, as in the regeneration of the cactus, he is met with grave problems which demand profound study.

When he turned to the cactus, on which he was to spend more than 10 years of study, it was, in the main, a stubborn, irreconcilable foe to the race; in order to make it a friend of man its whole nature must be changed; it must be re-created. To the average man it would seem a waste of time and energy to seek to improve a plant which for millions of years had been hostile to the race, which seemed to have absolutely nothing in common with civilization, which by its pariah-like nature seemed particularly fitted for a home upon the desert, its closest comrades the rattlesnake and the scorpion, its highest aim apparently to cause the death of some thirst-maddened animal driven to eat its juicy but deadly leaves.

But the more difficult the problem the keener his desire to solve it. He knew that the cactus, even in its wild and defiant shape, had certain unquestioned excellencies. It was undeniably hardy; it would grow and thrive where nothing else would, welcoming the blistering heat of the desert and growing powerful where rain seldom falls. It had much that was nutritious, both in its thick thalli, or leaves, and in its golden or crimson fruit. Wherever it had been given a chance away from its desert home and under favorable conditions it had shown phenomenal thrift. It was not one of those plants which will not bear transplanting from a wild to a civilized state.

Two main obstacles had first to be removed—the countless thorns upon the cactus, covering branches and leaves and fruit, and the spicules of the leaves, the woody fibrous skeletons of the thalli which made them more or less indigestible. These overcome, there remained the development of the fruit and the fitting of the leaves to be a food, food even for man as well as beast.

All this he has accomplished; nothing more marvelous has ever been done in plant life. It would be exceedingly difficult to say which one of Mr. Burbank's creations is the most valuable to the world from a practical point of view, which one adds most to the wealth of nations. But probably no other creation has surpassed this one, for it provides for the sustenance of the race, food for man and food for beast; it utilizes the vast desert areas of the world without the intervention of irrigation, though irrigation will aid here as well as elsewhere; it converts enormous reaches of semiarable land in all zones to profitable husbandry.

It has long been known that there were certain kinds of cactus growths having few, if any thorns, and certain ones the fruit of which the natives of some countries considered edible. It sometimes happens in Mr. Burbank's work that the essential thing is to combine excellent attributes and eliminate bad ones rather than to create a wholly new plant. And so it was in the case of the cactus. And yet, in one sense, the cactus he has produced is absolutely new, because no other cactus has ever combined so many excellencies, devoid of obnoxious elements—he has bred out the bad and bred in the good. It is quite like the touch of a great poet who finds the prosy story of a Hamlet or a Lear and leaves it a masterpiece.

Out of some 20 genera of cacti recognized by naturalists, only 5 occur in the United States, but these are among the most varied of all in their species, so that the 1,000 known varieties of cactus are nearly all restricted to America. It is upon one of these five, common to the United States, the Opuntia, that Mr. Burbank has worked as a basis. It is of the variety having flat, thick leaves, though sometimes inclined to be cylindrical. It is a native of Mexico and South America. In their natural state the flowers are very striking, some of them red, others purple, others yellow. One of the species of the Opuntia is cultivated in Mexico as a host for the cochineal insect. The insect thrives upon its leaves, is killed at the proper time and dried, and from it is produced the brilliant carmine color so useful in commerce. The juice of the fruit is sometimes used as a water color for painting and for coloring confectionery. Along the shores of the Mediterranean are several species of the Opuntia, the fruit of one of which is called the Indian fig and is much liked.

One of the Opuntias is hardy even in Alaska and in other similar climates, a characteristic which has had an important bearing on the work. This cactus was called in also, for the scheme laid out contemplated not only a cactus without thorns and spicules and preeminently a food, but one which should be adapted to the Arctics as well as the Tropics, one, as Mr. Burbank puts it, which will grow anywhere where man can live from the soil. Other varieties were also chosen, one for one characteristic, one for another, but all essential in the building up of an ideal plant.

Seeds were secured from all the different varieties needed and planted by the thousands in beds especially prepared. The plants were in rows a few inches apart,

from two to ten thousand plants in a bed. Extensive crossings were made by pollination as soon as the blossoms came, this being followed up for several seasons. The object of this crossing or hybridization was to break up radically, once and forever, the habits fastened upon the plants for perhaps millions of years. Seeds from these new plants were then planted. So persistent is the cactus in its habits that thousands of new seedlings showed no tendency toward improvement. Indeed, many of them, as if in very defiance of man, bore uglier thorns than any of their ancestors. Many of them were a mass of woody fiber. But some very few showed that a profound change was coming over their lives. This was indicated by a notable lessening of their spines, thorns, and bristles. All such plants were isolated for further crossing and selection. Tests were going on all the while also to ascertain whether or not any plants were losing their spicules. Such as were found improving in this direction were also isolated. And so for every excellence desired there was the sharpest scrutiny and also for every bad feature—it was a daily battle for the best. At last, when 10 years had gone by, the end of all this preliminary breeding and crossing and selecting came, and alongside the white picket fence which surrounds the home of Mr. Burbank rose a giant cactus, fully 8 feet in height, bearing thalli or leaves from 10 inches to a foot in length, 5 to 8 inches in width, nearly an inch in thickness, bearing fruit of large size, not a thorn upon it, not a spicule in all its rich meat—the bitter enemy of the desert converted into an abiding friend of man.

In creating this edible thornless cactus Mr. Burbank took into account a thousand and one things which may find no mention here, but one of them which may be noted shows how persistently practical is all his work. It takes much of the vital forces of the cactus to make its powerfully constructed thorns and to supply its thalli with spicules. In breeding these away from it he gives to nature the opportunity to devote all her energies to the production of food and fruit, and this will have a most important bearing on the future; he has not only transformed the cactus as to its product, but has, in removing these thorns and spicules, provided a means for vastly increasing this product.

The fruit of the new cactus is in shape quite like a fat cucumber slightly flattened at both ends. It is about 2¼ inches in diameter by 3½ inches long. Sometimes it is a beautiful yellow in color, while in the fruit from another plant the flesh is crimson. It is delicious to the taste. To some it has the flavor of a peach, to some a melon, to some the suggestion of a pineapple, to some a blackberry—to everyone who tastes it a different flavor from anything before eaten. It is, indeed, a new taste for the palate of the world. It may be eaten fresh or cooked, or it may be preserved. The thalli, too, have a peculiarly attractive flavor when cooked, and may be eaten in a variety of ways, or they may be put up as ginger or melon rinds are preserved. As a food for cattle the thalli are peculiarly rich, at least one-half as nutritious as alfalfa, and they will produce the finest beef, mutton, and pork.

It is quite significant, it may be said in passing, that at a time when industrious explorers of the United States Government were scouring the desert places of the earth in search of a thornless cactus which they thought might be introduced into the arid regions of America, finding at last in Algeria a prickly pear almost spineless, Mr. Burbank has been for years cultivating tens of thousands of cacti upon his proving grounds, thousands of them at that very time practically thornless and spiculeless, and all marching forward under his direction to produce a cactus which should not only have none of these undesirable things, but which should have many others of distinct value to man.

An indication of the wonderful growing powers of the new cactus is seen in the fact that in three years' time a single plant from seed produces 600 pounds of food.

Another and most important feature of the new cactus is that it has begun to breed true to type from the seed, while it, however, invariably persists from cuttings of the leaves. The cactus, as well as all other plants, stubborn or pliable, persists when once it has been definitely fixed in its new ways. Just as the cactus through all ages has persisted in bearing thorns and persisted in filling its thalli with spicules, just so it will persist in getting along without them when once it has been fully broken of the habit of bearing them. So the new cactus begins a new era in its family, an era of unexampled prosperity, and the era of good will and not enmity to man.

The possibilities of the new cactus have an enormous scope. The desert land on the globe is estimated to be 2,700,000,000 acres, an area 6,000 square miles larger than the area of the United States, inclusive of its insular possessions. All this, save, perhaps, in some case where absolutely no rain falls, may be reclaimed for food for man and beast if needs be. The regions known as steppes, much of which is semi-arable, are estimated at nearly 9,000,000,000 square miles additional, practically all of which may be utilized for the new cactus. The fertile regions of the globe are considerably larger than both these regions, some 29,000,000 square miles, over

16,000,000,000 acres. On every foot of fertile soil the cactus will grow with still greater rapidity than in the desert, for it takes on a new and powerful impulse under cultivation.

These figures give something of the possibilities. In Mr. Burbank's own words: "The population of the globe may be doubled, and yet in the immediate food of the cactus plant itself and in the food animals which may be raised upon it there would be still enough for all."

The new cactus will not be raised to sell. It is not at this time fully ready, for while the main end has been reached, other work in it must be done before it begins its career. As soon as it is finished any man with a few feet of earth in a corner of some city back yard, any man with a garden in the country, any man with acres which have lost their fertility, or with large areas on mountain or desert which have been long abandoned, may become a sharer in the fruits of this act. For here, as in all that he has ever done, the supreme purpose of his life looms up, colossal in its contrast with the mean selfishness of man: He has done all for the advancement of this race.

The fearsome, dreaded foe of the race has been conquered; the times of little rain are set at naught; the great flame-hearted sun itself, burning its mighty way across the blistering desert, is defied; the whole desert and arable regions of the globe by the act of one man may become a limitless reservoir of food.

David Starr Jordan, of the Stanford University of California, in speaking of the great work of Luther Burbank, and especially that relating to the spineless cacti for stock feeding, makes the following important observation:

In developing a spineless cactus for stock feeding, selections were made from the three hard northern species, *Opuntia rafinesquii*, *O. mesacantha*, and *O. vulgaris*, the latter the common prickly pear; these were crossed with *O. tuna* of Southern California, *ficus indica*, from Alba, Spain, and with a small opuntia from Central America, almost thornless.

The cactus of all species have smooth cotyledons, but the first bud is covered with thorns. These thorns have also been eliminated by selecting the smoothest individual seedlings without crossing. Crossing in this case generally interrupts the process, as it brings out well-fixed ancestral traits, but later to combine the best qualities of several species, crossing and selection must be resorted to. Examples seen were shoots of the original stock, prickly; the second generation, slightly prickly; the third without thorns; and later the spicules even within the substance of the cactus have been removed, so as to make the cactus very excellent food for cattle. This will have very great value in the arid regions. Some cacti lose the thorns on the plant but retain them on the fruit; others vice versa. By crossing and extensive and intensive selection a cactus may be improved in various ways, besides being deprived of thorns and of the internal spicules in six or less generations; these by means of cuttings may be multiplied rapidly to any extent, but the process, to be complete, generally takes longer. This thornless cactus should prove of very great value in the development of desert regions, as Arizona or Sonora, as the quality of food produced per acre is enormous. Its value is being already (1908) fully tested on a large scale near Indio, in California, and in the State of Victoria in Australia. It is evident that the thornless cactus can not be expected to flourish as a wild plant on the desert, for cattle and other browsing animals would devour it root and branch. Its effectiveness is as a forage plant, to be cut and thrown to cattle as green fodder. For this purpose it is extraordinarily abundant as to quantity, and at the same time most excellent as to quality, having a high nutritive value, exceeding in this respect most or all of the grasses.

Incidentally, in this connection, the edible fruit of the Opuntia ficus-indica or "Barbary fig," which has been long cultivated in southern Europe and northern Africa, has been greatly improved under selection. This plant was originally a native of tropical America, but has been long grown in the gardens of Spain, Italy, Morocco, and Algiers, and the yellow and red "figue de barbare" may often be found in the Paris markets.

Burbank has now (1908), when this interpolated page is written, upward of 500 kinds of edible cactus, with fruit yellow, crimson, and green, some with the flavor of Rocky Ford cantaloupe, others with the characteristic quality of peach, plum, and pomegranate. These fruits are extremely grateful to the palate. They are borne in enormous profusion. They are ripe at all times of the year and they bear transportation perfectly. All they lack is a reduction in the too large number of the small and stony seeds. When this change is made, as can be readily done in a few more selected crossings, no fruit of California shows so much promise as this. As every new seedling

is a new variety, as is the case with the apple and the potato, there is no visible limit to the possible range of improvement in the flavor of the fruit or the abundance of the desired crop. The dehorning of the cactus is perhaps economically the greatest of Mr. Burbank's achievements. Next to this in time will rank the enlargement and perfection of the cactus fruit.

The following letters bear upon and show what has been accomplished and could be accomplished by a successful propagation of this spineless food cacti.

SAN FRANCISCO, CAL., *March 12, 1912.*

Hon. JOSEPH T. ROBINSON,
House of Representatives, Washington, D. C.

SIR: There is pending before your committee House bill 20477. This bill provides a method whereby Mr. Luther Burbank may experiment with his spineless cactus on Government lands which are at present worthless, and should his experiments prove successful, purchase not to exceed 12 sections at the minimum Government price.

Mr. Burbank is in many respects California's first citizen and must be considered among the great men of the United States. His work in the development of new varieties of fruits and flowers is monumental, and represents an investment of 40 years of his life and nearly a quarter of a million dollars of his own money. Hugo De Vries, of the University of Amsterdam, and the greatest botanist in the world to-day, says that "in all Europe there is no one who can even compare with Luther Burbank" and that the "fruits and flowers of California are less wonderful than the fruits and flowers that Mr. Burbank has made. He is a unique, great genius."

Mr. Burbank has neither the time nor inclination to devote his energies to the commercializing of his products. He is content to receive a simple livelihood and to bestow ungrudgingly the benefits of his labor upon mankind. He has never asked nor received recognition at the hands of this Government.

Congressman Hayes has seen the spineless cactus growing at Santa Rosa and can testify as to its merits. Data concerning this cactus can be found in his speech on page 2889 of the Congressional Record for March 2, 1912.

Our experiments have shown that the cactus has a food value well in advance of the cheaper grades of cattle food; that it is a successful drought resistant, a prolific bearer, exceedingly cheap to raise and harvest, requiring no irrigation or replanting, and but little cultivation, and that it is a succulent food always available.

Of this cactus Mr. Burbank says, "It is better than my potato, plus all the novelties that I have introduced."

I am writing to you as Mr. Burbank's attorney, in his behalf. I do not believe there will be any serious opposition to this measure; but I am afraid that unless attention is called to it it may be lost sight of in the large amount of business that comes before each Congress.

While this is in the form of a private bill, I believe that in reality it is a public measure which will result in large benefit to the southwestern portion of the United States as demonstrating a method whereby much of its at present worthless lands may be made profitable.

Yours, very sincerely, FREDK. S. WYTHE.

SAN FRANCISCO, CAL., *May 18, 1912.*

Hon. JOHN E. RAKER,
House of Representatives, Washington, D. C.

DEAR SIR: Last month the Committee on Public Lands reported favorably on House bill 23043, permitting Luther Burbank, of this State, to demonstrate the value of his spineless cactus, at his own expense, on nonirrigable and semiarid Government land, giving him an option to purchase not to exceed 12 sections of the same.

I am writing to you to see just what possibility there is of this bill being favorably acted upon before the adjournment of this session of Congress. I have reserved 150,000 slabs of spineless cactus for this purpose. These slabs alone are worth between $10,000 and $20,000, being something in excess of seven carloads. I have also made tentative arrangements to spend about $10,000 in this experiment. The proper time to plant the cactus is in the months of June, July, August, and September. Consequently a failure on the part of Congress to act on this bill will mean considerable inconvenience and the loss of a year's time.

I have already written to you at some length as to the merits of the spineless cactus and of this bill, and I sincerely hope that you will do what you can to see that the matter, having progressed so far, does not drop from sight.

Thanking you for your consideration in this matter, I am,

Yours, very truly, FREDK. S. WYTHE.

NEWCASTLE, CAL., *March 12, 1912.*

Hon. JOHN E. RAKER, M. C.,
Washington, D. C.

DEAR SIR: There is a bill before the House of Representatives, No. 20477, introduced by Congressman E. E. Hayes, February 20, 1912, looking toward granting Luther Burbank, our California plant wizard, a tract of land for a term of years, for the purpose of developing more thoroughly the spineless cacti for food products. Many of your constituents are highly interested in this development. You probably are as familiar with Burbank as I am, and when we take into consideration what he has done for the world in the improvement of potato vines, trees, and plants, with practically no support or compensation, we think that the Government would do well to recognize his genius in this work by giving him something substantial.

As I understand the bill, he is to go upon the wild desert-like land, often rated without much value, and that he shall have the free reserved right to develop the spineless cactus plant, that the world may be benefited thereby, and even more so than Luther Burbank himself. Further, that at the end of a term of years he shall have the right to purchase at Government price the land that he has so developed.

As one of your constituents, and as I believe, in behalf of thousands of others, I would most earnestly ask that you assist in getting that bill out of the hands of the committee and before Congress, and do all that you can to press the passage of the bill as speedily as possible.

As our Government will only be out the use of what is likely to be an unproductive part of its domain for this number of years, we believe that it will be the gainer in the end, as he will naturally develop that class of land in a way for settlers to take hold of it more vigorously than heretofore.

The food product of the cacti has been demonstrated to be of great value, especially to the stock-growing interests.

Furthermore, we believe that Luther Burbank is deserving of this concession on the part of the Government.

Trusting that the bill may be passed as written, I am,

Your constituent, GEO. D. KELLOGG.

SAN FRANCISCO, *March 14, 1912.*

Hon. JOHN E. RAKER,
House of Representatives, Washington, D. C.

DEAR SIR: My attention has been directed to the pending of a bill (House bill 20477) before the Committee on the Public Lands giving an opportunity to Mr. Luther Burbank, at his own expense, to experiment with and demonstrate the utility of the spineless cactus. I beg to present that if this matter proves a success, as it should, the valuable results arising therefrom can hardly be overestimated. It will, if successful, give a great value to lands now worthless and afford fodder for the further development of the cattle industry, which is a growing necessity in our country. I have personally thought so well of the spineless cactus as to intend to put out that plant on our ranches in California. It would seem to me to be a representative duty of every western Congressman to urge and support the passage of this bill.

Yours, very truly,

W. MAYO NEWHALL.

MODESTO, CAL., *March 14, 1912.*

Hon. JOHN E. RAKER,
House of Representatives, Washington, D. C.

MY DEAR MR. RAKER: There is pending before the Committee on Public Lands a bill (House bill 20477) providing a means whereby Luther Burbank may, at his own expense, experiment with spineless cactus on semiarid and practically worthless lands in this State and Arizona, and should his experiments prove successful, purchase 12 sections or less of these lands at the minimum Government price.

I believe such a measure will prove of great benefit to the ultimate utilization of the arid lands of the State, and is indeed a very small recognition of the work of Mr. Burbank.

I most sincerely hope that it will be possible for you to use your influence to secure the passage of this measure at this present Congress.

Very sincerely, L. L. DENNETT.

SAN FRANCISCO, CAL., *March 11, 1912.*

Hon. JOHN E. RAKER,
House of Representatives, Washington, D. C.

DEAR SIR: There is pending before the Committee on the Public Lands a bill (House bill 20477) providing a means whereby Luther Burbank may, at his own expense, experiment with spineless cactus on semiarid and practically worthless lands in this State and Arizona, and should his experiments prove successful, purchase 12 sections or less of these lands at the minimum Government price.

I believe such a measure will prove of great benefit to the ultimate utilization of the arid lands of the State and is indeed a very small recognition of the work of Mr. Burbank.

I therefore urge that you do all that you can to secure the passage of this measure at this present Congress.

Thanking you in advance for your attention to this, I am,

Yours, very sincerely,

C. B. PENKINS.

It has been said of Mr. Burbank that his actual gifts to the race are beyond compensation and can not be estimated in millions of dollars or even in the great state of advancement of man's physical comfort and welfare.

And again, speaking of this man and his great work, it has been said, "The laborer is worthy of his hire, and Mr. Burbank should reap abundantly the rewards of his indefatigable persistence and potent investigations."

H. Rept. 821, 62—2——2

LIBRARY OF CONGRESS
0 020 950 084 A